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EXAMINER	
MASINICK, MICHAEL D	
ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/692,644	SUTARDJA, SEHAT	
	Examiner	Art Unit	
	Michael D. Masinick	2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *2/19/2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28,189 and 190* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28,189 and 190* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *2/19/2009*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-28 and 189-190 are pending in this application. This office action is in response to the arguments filed 2/19/2009.

Response to Arguments

Applicant's arguments are not persuasive.

Applicant's argument that Atmel fails to make up for the deficiencies of Duxbury is not persuasive because applicant is attempting to bodily incorporate the concepts of Atmel into the actual system of Duxbury. This is not appropriate or reasonable. The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

In this case, Duxbury shows that irrigations systems have individual controllers in each station capable of receiving a signal and producing a control action based on the signal. The Atmel article shows a media access controller with wireless 802.11 "on chip" with the design to be able to receive a control signal to provide a controller service. KSR Vs. Teleflex decision of the Supreme Court has made it clear that "simple substitution of one known element for another to obtain predictable results" should be found to be obvious. There is no doubt that neither the concept of having controllers in an irrigation system nor a MAC addressable wireless media access controller are new. Sufficient evidence has been provided by the examiner to show why

one of ordinary skill in the art would choose to use a wireless media access controller (Atmel's "higher performance, lower cost, and lower power consumption"). Thus, the simple substitution of a traditional "wired" communications system with that of a media access controlled wireless system (such as that of Atmel) is a technology based upgrade with very predictable results.

Applicant's arguments that the prior art does show a controller that filters data received to select frames addressed to the MAC is not persuasive. This is the purpose an operating procedure in any MAC addressing system and would clearly be inherent if not obvious to one of ordinary skill in the art implementing such a system.

Finally applicant argues that the examiner has failed to provide an "explicit analysis". However applicant's own arguments state that the explicit analysis must be provided by the examiner "Absent such an express teaching or suggestion in the references". In this case Atmel clearly shows an advantage of the prior systems ("higher performance, lower cost, and lower power consumption"). The argument that this improvement in Atmel is stated only as an improvement over existing media access controllers may be true, but it is most certainly an improvement over a radio frequency based "wireless" controller as shown in Duxbury and the incentive to use the MAC system provided in Atmel would very clearly be obvious to one of ordinary skill in the art based on these passages.

Applicant's remaining arguments seem to be opinion based arguments that the "lower cost, lower power consumption" reasons for combining the Atmel reference are simply broad generalizations. However broad they may be, they are the reasons one of ordinary skill in the art would look to the Atmel system as a replacement for an older RF based system in Duxbury.

All rejections are maintained as previously written.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 9-11, 23-25, and 189-190 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,760,547 to Duxbury in view of "Atmel Announces 802.11b Media Access Controller (MAC) with Integrated Baseband for Wireless Applications" (hereinafter "Atmel").

3. Referring to claims 1 and 15, Duxbury shows a sprinkler system comprising: a plurality of sprinklers each comprising a sprinkler valve adapted to regulate an amount of fluid delivered by the sprinkler in response to a control signal (Column 5, lines 18-20); a master unit adapted to transmit digital data (Column 2, lines 12-14); a plurality of sprinkler controllers, each one of the plurality of sprinkler controllers associated with a respective one of the plurality of sprinklers (irrigation stations, receiver, etc) and comprising: a receiver adapted to receive a signal representing the digital data (column 2, line 14); a controller adapted to obtain the digital data from the signal (Column 2, lines 15 and 16); and a processor adapted to produce the control signal based on the digital data obtained by the controller (Column 2, lines 16-27); and an output circuit adapted to provide the control signal to the sprinklers

4. Duxbury does not show that the controller is a media access controller which receives digital data (which inherently frames the digital data, filters the digital data to select frames of the digital data that are addressed to the one of the plurality of sprinkler controllers). The system of Duxbury is a radio signal controller where the master controller communicates with the individual station controllers via radio signals either wirelessly (through actual RF communication or in a wired manner (see column 8)).

5. The Atmel article shows a wireless 802.11b media access controller "on chip". These chips are designated for use in individual devices for the purpose of receiving a signal from a main device to provide some type of controlled service.

6. It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the RF tones interfaces of the Duxbury patent with wireless devices as described in the Atmel article because it "...has allowed our customers a path to higher performance, lower cost, and lower power consumption...and allow a very small footprint".

7. Referring to claims 9-11, 23-25, Krause does not show that the processor and the media controller are implemented together as a single integrated circuit.

8. Likewise, It would have been obvious to one of ordinary skill in the art at the time the invention was made to integrate the processor with the media access controller (and wireless functionality) because this integration results in ""higher performance, lower cost and lower power consumption.". Examiner notes that the Atmel article shows advanced features of the wireless chip but does not specifically show its use in a sprinkler system environment. U.S. Patent 6594272 is therefore cited by the examiner as a teaching reference to show that using

wireless MAC address based controllers were known at the time of invention to be used in sprinkler systems.

9. Referring to claims 10, 24, Atmel shows wherein the receiver is a wireless receiver.

10. Referring to claims 11, 25, Atmel shows wherein the receiver complies with a standard selected from the group consisting of: IEEE 802.11; IEEE 802.11a; **IEEE 802.11b**; IEEE 802.11g; IEEE 802.11h; IEEE 802.11i; Short Messaging Service (SMS); and Analog Display Service Interface (ADSI).

11. Referring to claims 189-190, Atmel show wherein the receiver comprises pager technology (RFMD radio chipset).

12. Claims 2-8, and 12-14, 16-22, 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,760,547 to Duxbury in view of "Atmel Announces 802.11b Media Access Controller (MAC) with Integrated Baseband for Wireless Applications" (hereinafter "Atmel") and further in view of U.S. Patent No. 5,038,268 to Krause et al.

13. With respect to claims 2-8, and 12-14, 16-22, 26-28, Duxbury/Atmel does not specifically show the following known concepts of a controlled sprinkler system. Krause is a controlled sprinkler system as used in previous rejections. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the signals, sensors, and inputs shown in Krause below to control the system of Duxbury/Atmel because it provides "functional statistics, assessment of the system flow characteristics, and monitoring of station and system malfunctions".

14. Referring to claims 2, 16, Krause shows wherein the digital data comprises data representing at least one of the group comprising: a desired sprinkler operation schedule (Column 3, lines 53-59); meteorological conditions; and a status of a fluid supply system supplying the fluid to the sprinklers (Column 7, lines 47-53).

15. Referring to claims 3, 17, Krause shows wherein the sprinkler controller further comprises: a timer adapted to provide a time signal representing a time of day; wherein the processor is adapted to provide the control signal based on the digital data obtained by the media access controller and the time signal (Column 7, lines 63 through Column 8, line 14).

16. Referring to claims 4, 18, Krause shows wherein the receiver is further adapted to receive a sensor signal provided by one or more sensors; and wherein the processor is further adapted to provide the control signal based on the digital data obtained by the media access controller and the sensor signal ("Soil moisture sensors and a flow meter provide reliable irrigation of large lawns while optimizing water conservation.").

17. Referring to claims 5, 19, Krause shows flow meter sensors in the quotation above.

18. Referring to claims 6, 20, Krause shows the one or more sensors (abstract "sensors").

19. Referring to claims 7, 21, Krause shows wherein the sprinkler controller further comprises: a keypad adapted to provide a keypad control signal in response to operation of the keypad; wherein the processor is further adapted to provide the control signal based on the digital data obtained by the media access controller and the keypad control signal (Column 9, lines 11-49).

20. Referring to claims 8, 22, Krause shows wherein the sprinkler controller further comprises: a display adapted to display a status of the sprinkler controller (Column 5, lines 8-53).

21. Referring to claims 12, 26, Krause shows wherein the sprinkler controller further comprises: a memory adapted to store a sprinkler schedule; and wherein the processor is further adapted to produce the control signal based on the sprinkler schedule (Figure 6B – "The automatic controller of the present invention is designed to operate with irrigation systems having a plurality of moisture sensors to automatically control irrigation sequences in accordance with a predefined schedule."). Examiner notes that the EPROM/RAM of Figure 6B is the only storage medium of the controllers - thus, if the controllers are set up to operate off of a schedule, this schedule must be installed in the memory units.

22. Referring to claims 13, 27, Krause shows wherein the processor is further adapted to produce the control signal based on the sprinkler schedule stored in the memory when the signal representing the digital data is unavailable (Column 313, line 45 – Column 314, line 15). Examiner notes that this passage makes it clear that the irrigation system functions in accordance with a predetermined schedule unless that schedule is interrupted by a sensed condition. If no condition is sense that would interrupt the schedule (or no interrupting data is sent) then the sprinklers will function in accordance with the predetermined schedule.

23. Referring to claims 14, 28, Krause shows wherein the memory is non-volatile (Figure 6B – EEPROM).

Conclusion

24. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael D. Masinick whose telephone number is (571) 272-3746. The examiner can normally be reached on Mon-Fri, 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached on (571) 272-2279. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael D Masinick/
Primary Examiner, Art Unit 2128